REMARKS

This is a full and timely response to the non-final Office Action (Paper No. 3) mailed by the U.S. Patent and Trademark Office on October 27, 2003. Claims 1, 3-8, 10-14 and 16-26 remain pending in the application. Applicant has amended independent claims 1, 8, 14, 19 and 23. Applicant has canceled claims 2, 9 and 15 without prejudice, waiver or disclaimer. In view of the foregoing amendments and following remarks, reconsideration and allowance of the presently pending claims is respectfully requested.

Applicant respectfully submits that the pending claims are allowable over the cited reference for at least the reason that the cited reference does not disclose, teach, or suggest at least a multiple wavelength output light source, wherein a laser device, a plurality of modulators and a demultiplexer are fabricated on one substrate and comprise one module.

Each rejection presented in the Office Action is discussed in the remarks that follow.

I. Response to 35 U.S.C. §112 Rejections

A. Statement of the Rejection

Claims 1-26 presently stand rejected under 35 U.S.C. §112, Second Paragraph, as allegedly being incomplete for omitting essential structural cooperative relationship of elements, such omission amounting to a gap between the necessary structural connections. The Office Action refers the Applicant to M.P.E.P. §2172.01.

B. Discussion of the Rejection

Applicant respectfully submits that M.P.E.P. §2172.01, which is entitled "Unclaimed Essential Matter" relates to "[a] claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record." M.P.E.P. §2172.01 continues, citing *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976),

stating that such a claim "may be rejected under 35 U.S.C. 112, first paragraph, as not enabling." M.P.E.P. §2172.01 states that "[s]uch essential matter may include missing elements, steps or necessary structural cooperative relationships of elements described by the applicant(s) as necessary to practice the invention." Applicant respectfully submits that the rejection put forth in the Office Action appears to draw on both 35 U.S.C. second paragraph, and on M.P.E.P. §2172.01, which refers to the 35 U.S.C. first paragraph, enablement provision. Accordingly, although Applicant is unsure of the intended rejection, Applicant has amended independent claims 1 and 19 to provide structural relationship among the recited elements. However, Applicant respectfully submits that independent claims 8, 14 and 23 are method claims, and as such, are permitted to be devoid of structural recitation.

II. Response to 35 U.S.C. §102 Rejections

A. Statement of the Rejection

Claims 1-4, 6-11, 13 and 19-26 presently stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,603,781 to Stinson *et al.* (hereafter *Stinson*).

B. Discussion of the Rejection

Applicant respectfully traverses the rejection of claims 1-4, 6-11, 13 and 19-26 under 35 U.S.C. §102(e) over *Stinson* for at least the reason that *Stinson* fails to disclose, teach, or suggest each element in the claims.

A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen,* 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d

705, 15 USPQ2d 1655 (Fed. Cir. 1990). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.,* 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). The test is the same for a process. Anticipation requires identity of the claimed process and a process of the prior art. The claimed process, including each step thereof, must have been described or embodied, either expressly or inherently, in a single reference. *See, e.g., Glaverbel S.A. v. Northlake Mkt'g & Supp., Inc.,* 45 F.3d 1550, 33 USPQ2d 1496 (Fed. Cir. 1995). Those elements must either be inherent or disclosed expressly. *See, e.g., Constant v. Advanced Micro-Devices, Inc.,* 848 F.2d 1560, 7 USPQ2d 1057 (Fed. Cir. 1988); *Verdegaal Bros., Inc. v. Union Oil Co.,* 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987). Those elements must also be arranged as in the claim. *See, e.g., Richardson v. Suzuki Motor Co.,* 868 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989); *Carella v. Starlight Archery & Pro Line Co.*, 804 F.2d 135, 231 USPQ 644 (Fed. Cir. 1986). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.,* 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

Accordingly, the single prior art reference must properly disclose, teach or suggest each element of the claimed invention.

For at least the reason that *Stinson* fails to disclose, teach, or suggest at least Applicant's multiple wavelength output light source, "wherein the laser device, the plurality of modulators and the demultiplexer are fabricated on one substrate and comprise one module," as recited in claim 1, Applicant respectfully submits that *Stinson does not* anticipate Applicant's independent claim 1.

Claim 1

For convenience of analysis, independent claim 1, as amended, is repeated below in its entirety.

1. A multiple wavelength output light source, comprising:

a laser device having a plurality of output wavelengths;

a demultiplexer optically coupled to the laser device, the demultiplexer for separating the plurality of output wavelengths; and

a plurality of modulators optically coupled to the demultiplexer, the modulators associated with and configured to modulate each wavelength, ***wherein the laser device, the plurality of modulators and the demultiplexer are fabricated on one substrate and comprise one module.***

(Applicant's independent claim 1, as amended - *emphasis added.*)

Applicant respectfully asserts that *Stinson* fails to disclose, teach, or suggest at least the emphasized elements of pending claim 1 as shown above. Consequently, claim 1 is allowable.

Specifically, *Stinson* fails to disclose, teach, or suggest at least Applicant's multiple wavelength output light source comprising "a plurality of modulators optically coupled to the demultiplexer, the modulators associated with and configured to modulate each wavelength, ***wherein the laser device, the plurality of modulators and the demultiplexer are fabricated on one substrate and comprise one module.***"

Stinson appears to disclose an optical transmitter having a number of different functional elements coupled to provide optical modulation. From this, it is abundantly clear that *Stinson* merely discloses an optical transmitter having a number of distributed components. Indeed, Applicant has carefully reviewed the teachings of *Stinson* and can find nothing to indicate the manner in which the components in *Stinson* are assembled, much less any teaching that the elements are formed on a single substrate. Applicant respectfully requests that the Examiner point out the specific location in *Stinson* where a single substrate

implementation is disclosed.

In marked contrast to *Stinson*, the present invention discloses a multiple wavelength output light source comprising at least "a plurality of modulators optically coupled to the demultiplexer, the modulators associated with and configured to modulate each wavelength, ***wherein the laser device, the plurality of modulators and the demultiplexer are fabricated on one substrate and comprise one module.***" Applicant respectfully submits that at least these features are neither disclosed taught or suggested by *Stinson*.

Applicant respectfully submits that *Stinson* fails to disclose, teach or suggest at least the elements in Applicant's claim 1 highlighted above, and merely discloses an optical transmitter having distributed components. Therefore, while *Stinson* appears to disclose the implementation of an optical transmitter, *Stinson* fails to disclose, teach or suggest Applicant's multiple wavelength output light source including at least the elements highlighted above in Claim 1.

In marked contrast to *Stinson*, the present invention discloses a multiple wavelength output light source comprising at least "a plurality of modulators optically coupled to the demultiplexer, the modulators associated with and configured to modulate each wavelength, ***wherein the laser device, the plurality of modulators and the demultiplexer are fabricated on one substrate and comprise one module***." Specifically, on page 3, lines 14-16, the specification states that "the laser device, the plurality of modulators and the combining device can be economically fabricated on one substrate and comprise one module." Further, on page 9, lines 3-18, the specification states:

> FIG. 5 is a graphical illustration showing a light source 400 integrated in a single module. The module 400 includes a ceramic module 404 over which a silica waveguide combiner 406 is constructed. The silica waveguide combiner 406 may include the demultiplexer 218 and the multiplexer 252 of FIG. 3. The FP laser 210 receives an electrical input stimulus over connection 402 and can also be integrated onto the ceramic module 404 as shown so that the light output of the FP laser 210 is coupled to the silica waveguide

> combiner 406. The silica waveguide combiner 406, and more specifically, the demultiplexer 218 fabricated thereon, include the individual connections 222, 224, 226 and 228 that couple the output of the FP laser 210 to respective modulators 232, 234, 236 and 238. The output of each modulator is then supplied to a respective connection 242, 244, 246 and 248 over which the outputs are combined onto the optical fiber 104.
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> As shown in FIG. 5, the laser 210, the demultiplexer 218, the modulators 232, 234, 236 and 238, and the multiplexer 252 can all be integrated onto the ceramic module 404, thus creating a compact modular light source that is capable of providing multiple wavelength output modulated light signals from the single FP laser.

With regard to the statement in the Office Action regarding claim 2 that "Stinson discloses a the laser device, the plurality of modulators and the demultiplexer are fabricated on one substrate and comprise one module (see Figs. 1, 3 and 4)," Applicant respectfully submits that nowhere does *Stinson* disclose teach or suggest a laser device, a plurality of modulators and a demultiplexer that are fabricated on one substrate and that comprise one module, as recited in amended claim 1. In Figures 1 and 4, *Stinson* appears to disclose a plurality of separate, interconnected elements that form a multi-channel transmitter system. In Figure 3, *Stinson* appears to disclose a multi-frequency light source in the form of a vertical cavity surface emitting laser (VCSEL) having an adjustable external cavity to adjust the mode spacing of the VCSEL. However, in none of Figures 1, 3 or 4 does *Stinson* disclose teach or suggest a laser device, a plurality of modulators and a demultiplexer that are fabricated on one substrate and that comprise one module.

Thus, *Stinson* fails to disclose, teach, or suggest each element of Applicant's independent claim 1. Consequently, Applicant respectfully submits that claim 1 is allowable over *Stinson* and requests that the rejection of claim 1 be withdrawn.

Because independent claim 1 is allowable, dependent claims 3-7, which depend directly from allowable independent claim 1 are also allowable. *In re Fine,* 837 F.2d 1071 (Fed. Cir. 1988). Accordingly, Applicant respectfully requests that the rejection of claims 1 and 3-7 be withdrawn.

Claim 8

For convenience of analysis, independent claim 8, as amended, is repeated below in its entirety.

8. A method for forming a broad spectrum modulated laser output, the method comprising:

providing a laser device having a plurality of output wavelengths;

separating the plurality of output wavelengths;

modulating each of the plurality of output wavelengths; and

forming the laser device and performing the modulating step and the separating step on one substrate.

(Applicant's independent claim 8, as amended - *emphasis added.*)

Applicant respectfully asserts that *Stinson* fails to disclose, teach, or suggest at least the emphasized elements of pending claim 8 as shown above. Consequently, claim 8 is allowable.

Specifically, *Stinson* fails to disclose, teach, or suggest at least Applicant's method for forming a broad spectrum modulated laser output comprising "***forming the laser device and performing the modulating step and the separating step on one substrate.***"

Stinson appears to disclose an optical transmitter having a number of different functional elements coupled to provide optical modulation. From this, it is abundantly clear that *Stinson* merely discloses an optical transmitter having a number of distributed components. Indeed, Applicant has carefully reviewed the teachings of *Stinson* and can find nothing to indicate the manner in which the components in *Stinson* are assembled, much less any teaching that the elements are formed on a single substrate. Applicant respectfully requests that the Examiner point out the specific location in *Stinson* where a single substrate implementation is disclosed.

In marked contrast to *Stinson*, the present invention discloses a method for forming a broad spectrum modulated laser output comprising at least "***forming the laser device and performing the modulating step and the separating step on one substrate.***" Applicant respectfully submits that at least this feature is neither disclosed taught or suggested by *Stinson*.

Applicant respectfully submits that *Stinson* fails to disclose, teach or suggest at least the elements in Applicant's claim 8 highlighted above, and merely discloses an optical transmitter having distributed components. Therefore, while *Stinson* appears to disclose the implementation of an optical transmitter, *Stinson* fails to disclose, teach or suggest Applicant's method for forming a broad spectrum modulated laser output including at least the step highlighted above in Claim 8.

In marked contrast to *Stinson*, the present invention discloses a method for forming a broad spectrum modulated laser output comprising at least "***forming the laser device and performing the modulating step and the separating step on one substrate.***" Specifically, on page 3, lines 14-16, the specification states that "the laser device, the plurality of modulators and the combining device can be economically fabricated on one substrate and comprise one module." Further, on page 9, lines 3-18, the specification states:

> FIG. 5 is a graphical illustration showing a light source 400 integrated in a single module. The module 400 includes a ceramic module 404 over which a silica waveguide combiner 406 is constructed. The silica waveguide combiner 406 may include the demultiplexer 218 and the multiplexer 252 of FIG. 3. The FP laser 210 receives an electrical input stimulus over connection 402 and can also be integrated onto the ceramic module 404 as shown so that the light output of the FP laser 210 is coupled to the silica waveguide combiner 406. The silica waveguide combiner 406, and more specifically, the demultiplexer 218 fabricated thereon, include the individual connections 222, 224, 226 and 228 that couple the output of the FP laser 210 to respective modulators 232, 234, 236 and 238. The output of each modulator is then supplied to a respective connection 242, 244, 246 and 248 over which the outputs are combined onto the optical fiber 104.
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> As shown in FIG. 5, the laser 210, the demultiplexer 218, the modulators 232, 234, 236 and 238, and the multiplexer 252 can all be

integrated onto the ceramic module 404, thus creating a compact modular light source that is capable of providing multiple wavelength output modulated light signals from the single FP laser.

With regard to the statement in the Office Action regarding claim 9 that "Stinson discloses a laser device and performing the modulation step and the separating step on a single module (see Figs. 1, 3 and 4)," Applicant respectfully submits that nowhere does *Stinson* disclose teach or suggest a laser device, a plurality of modulators and a demultiplexer that are fabricated on one substrate and that comprise one module, as recited in amended claim 8. In Figures 1 and 4, *Stinson* appears to disclose a plurality of separate, interconnected elements that form a multi-channel transmitter system. In Figure 3, *Stinson* appears to disclose a multi-frequency light source in the form of a vertical cavity surface emitting laser (VCSEL) having an adjustable external cavity to adjust the mode spacing of the VCSEL. However, in none of Figures 1, 3 or 4 does *Stinson* disclose teach or suggest a laser device, a plurality of modulators and a demultiplexer that are fabricated on one substrate and that comprise one module.

Thus, *Stinson* fails to disclose, teach, or suggest each element of Applicant's independent claim 8. Consequently, Applicant respectfully submits that claim 8 is allowable over *Stinson* and requests that the rejection of claim 8 be withdrawn.

Because independent claim 8 is allowable, dependent claims 10-13, which depend directly from allowable independent claim 8 are also allowable. *In re Fine, supra.* Accordingly, Applicant respectfully requests that the rejection of claims 8 and 10-13 be withdrawn.

Claim 14

For convenience of analysis, independent claim 14, as amended, is repeated below in its entirety.

14. A method for forming a broad spectrum modulated laser output, the method comprising the steps of:

providing a Fabry-Perot laser device having a plurality of outputs, each output at a different spectral location;

separating the plurality of outputs;

modulating each of the plurality of outputs with communication information resulting in a plurality of modulated outputs; and

forming the Fabry-Perot laser device and performing the modulating step and the separating step on one substrate.

(Applicant's independent claim 14, as amended - *emphasis added.*)

Applicant respectfully asserts that *Stinson* fails to disclose, teach, or suggest at least the emphasized elements of pending claim 14 as shown above. Consequently, claim 14 is allowable.

Specifically, *Stinson* fails to disclose, teach, or suggest at least Applicant's method for forming a broad spectrum modulated laser output comprising "***forming the Fabry-Perot laser device and performing the modulating step and the separating step on one substrate.***"

Stinson appears to disclose an optical transmitter having a number of different functional elements coupled to provide optical modulation. From this, it is abundantly clear that *Stinson* merely discloses an optical transmitter having a number of distributed components. Indeed, Applicant has carefully reviewed the teachings of *Stinson* and can find nothing to indicate the manner in which the components in *Stinson* are assembled, much less any teaching that the elements are formed on a single substrate. Applicant respectfully requests that the Examiner point out the specific location in *Stinson* where a single substrate implementation is disclosed.

In marked contrast to *Stinson*, the present invention discloses a method for forming a broad spectrum modulated laser output comprising at least "***forming the Fabry-Perot laser***

device and performing the modulating step and the separating step on one substrate." Applicant respectfully submits that at least this feature is neither disclosed taught or suggested by *Stinson*.

Applicant respectfully submits that *Stinson* fails to disclose, teach or suggest at least the elements in Applicant's claim 14 highlighted above, and merely discloses an optical transmitter having distributed components. Therefore, while *Stinson* appears to disclose the implementation of an optical transmitter, *Stinson* fails to disclose, teach or suggest Applicant's method for forming a broad spectrum modulated laser output including at least the step highlighted above in Claim 14.

In marked contrast to *Stinson*, the present invention discloses a method for forming a broad spectrum modulated laser output comprising at least "***forming the Fabry-Perot laser device and performing the modulating step and the separating step on one substrate.***" Specifically, on page 3, lines 14-16, the specification states that "the laser device, the plurality of modulators and the combining device can be economically fabricated on one substrate and comprise one module." Further, on page 9, lines 3-18, the specification states:

> FIG. 5 is a graphical illustration showing a light source 400 integrated in a single module. The module 400 includes a ceramic module 404 over which a silica waveguide combiner 406 is constructed. The silica waveguide combiner 406 may include the demultiplexer 218 and the multiplexer 252 of FIG. 3. The FP laser 210 receives an electrical input stimulus over connection 402 and can also be integrated onto the ceramic module 404 as shown so that the light output of the FP laser 210 is coupled to the silica waveguide combiner 406. The silica waveguide combiner 406, and more specifically, the demultiplexer 218 fabricated thereon, include the individual connections 222, 224, 226 and 228 that couple the output of the FP laser 210 to respective modulators 232, 234, 236 and 238. The output of each modulator is then supplied to a respective connection 242, 244, 246 and 248 over which the outputs are combined onto the optical fiber 104.
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> As shown in FIG. 5, the laser 210, the demultiplexer 218, the modulators 232, 234, 236 and 238, and the multiplexer 252 can all be integrated onto the ceramic module 404, thus creating a compact modular light source that is capable of providing multiple wavelength output modulated light signals from the single FP laser.

Thus, *Stinson* fails to disclose, teach, or suggest each element of Applicant's independent claim 14. Consequently, Applicant respectfully submits that claim 14 is allowable over *Stinson* and requests that the rejection of claim 14 be withdrawn.

Because independent claim 14 is allowable, dependent claims 16-18, which depend directly from allowable independent claim 14 are also allowable. *In re Fine, supra.* Accordingly, Applicant respectfully requests that the rejection of claims 14 and 16-18 be withdrawn.

Claim 19

For convenience of analysis, independent claim 19, as amended, is repeated below in its entirety.

19. An optical system comprising:

a laser that outputs plural wavelengths; and

modulator means optically coupled to the laser, the modulator means for modulating each of the wavelengths independently, ***wherein the laser and the modulator means are fabricated on one substrate and comprise one module.***

(Applicant's independent claim 19, as amended - *emphasis added.*)

Applicant respectfully asserts that *Stinson* fails to disclose, teach, or suggest at least the emphasized elements of pending claim 19 as shown above. Consequently, claim 19 is allowable.

Specifically, *Stinson* fails to disclose, teach, or suggest at least Applicant's optical system comprising "modulator means optically coupled to the laser, the modulator means for modulating each of the wavelengths independently, ***wherein the laser and the modulator means are fabricated on one substrate and comprise one module.***"

Stinson appears to disclose an optical transmitter having a number of different

functional elements coupled to provide optical modulation. From this, it is abundantly clear that *Stinson* merely discloses an optical transmitter having a number of distributed components. Indeed, Applicant has carefully reviewed the teachings of *Stinson* and can find nothing to indicate the manner in which the components in *Stinson* are assembled, much less any teaching that the elements are formed on a single substrate. Applicant respectfully requests that the Examiner point out the specific location in *Stinson* where a single substrate implementation is disclosed.

In marked contrast to *Stinson*, the present invention discloses an optical system comprising at least "modulator means optically coupled to the laser, the modulator means for modulating each of the wavelengths independently, ***wherein the laser and the modulator means are fabricated on one substrate and comprise one module.***" Applicant respectfully submits that at least these features are neither disclosed taught or suggested by *Stinson*.

Applicant respectfully submits that *Stinson* fails to disclose, teach or suggest at least the elements in Applicant's claim 19 highlighted above, and merely discloses an optical transmitter having distributed components. Therefore, while *Stinson* appears to disclose the implementation of an optical transmitter, *Stinson* fails to disclose, teach or suggest Applicant's optical system including at least the elements highlighted above in Claim 19.

In marked contrast to *Stinson*, the present invention discloses an optical system comprising at least "modulator means optically coupled to the laser, the modulator means for modulating each of the wavelengths independently, ***wherein the laser and the modulator means are fabricated on one substrate and comprise one module.***" Specifically, on page 3, lines 14-16, the specification states that "the laser device, the plurality of modulators and the combining device can be economically fabricated on one substrate and comprise one module." Further, on page 9, lines 3-18, the specification states:

> FIG. 5 is a graphical illustration showing a light source 400 integrated in a single module. The module 400 includes a ceramic module 404 over which a silica waveguide combiner 406 is constructed. The silica waveguide combiner 406 may include the demultiplexer 218 and the multiplexer 252 of FIG. 3. The FP laser 210 receives an electrical input stimulus over connection 402 and can also be integrated onto the ceramic module 404 as shown so that the light output of the FP laser 210 is coupled to the silica waveguide combiner 406. The silica waveguide combiner 406, and more specifically, the demultiplexer 218 fabricated thereon, include the individual connections 222, 224, 226 and 228 that couple the output of the FP laser 210 to respective modulators 232, 234, 236 and 238. The output of each modulator is then supplied to a respective connection 242, 244, 246 and 248 over which the outputs are combined onto the optical fiber 104.
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> As shown in FIG. 5, the laser 210, the demultiplexer 218, the modulators 232, 234, 236 and 238, and the multiplexer 252 can all be integrated onto the ceramic module 404, thus creating a compact modular light source that is capable of providing multiple wavelength output modulated light signals from the single FP laser.

Thus, *Stinson* fails to disclose, teach, or suggest each element of Applicant's independent claim 19. Consequently, Applicant respectfully submits that claim 19 is allowable over *Stinson* and requests that the rejection of claim 19 be withdrawn.

Because independent claim 19 is allowable, dependent claims 20-22, which depend directly from allowable independent claim 19 are also allowable. *In re Fine, supra.* Accordingly, Applicant respectfully requests that the rejection of claims 19-22 be withdrawn.

Claim 23

For convenience of analysis, independent claim 23, as amended, is repeated below in its entirety.

> 23. An optical method comprising:
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> operating a laser to provide an output characterized by plural wavelengths;
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> modulating the plural wavelengths independently; and
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> ***forming the laser device and performing the modulating step on one substrate.***

(Applicant's independent claim 23, as amended - *emphasis added.*)

Applicant respectfully asserts that *Stinson* fails to disclose, teach, or suggest at least the emphasized elements of pending claim 23 as shown above. Consequently, claim 23 is allowable.

Specifically, *Stinson* fails to disclose, teach, or suggest at least Applicant's optical method comprising "***forming the laser device and performing the modulating step on one substrate.***"

Stinson appears to disclose an optical transmitter having a number of different functional elements coupled to provide optical modulation. From this, it is abundantly clear that *Stinson* merely discloses an optical transmitter having a number of distributed components. Indeed, Applicant has carefully reviewed the teachings of *Stinson* and can find nothing to indicate the manner in which the components in *Stinson* are assembled, much less any teaching that the elements are formed on a single substrate. Applicant respectfully requests that the Examiner point out the specific location in *Stinson* where a single substrate implementation is disclosed.

In marked contrast to *Stinson*, the present invention discloses an optical method comprising at least "***forming the laser device and performing the modulating step on one substrate.***" Applicant respectfully submits that at least this feature is neither disclosed taught or suggested by *Stinson*.

Applicant respectfully submits that *Stinson* fails to disclose, teach or suggest at least the elements in Applicant's claim 23 highlighted above, and merely discloses an optical transmitter having distributed components. Therefore, while *Stinson* appears to disclose the implementation of an optical transmitter, *Stinson* fails to disclose, teach or suggest Applicant's optical method including at least the step highlighted above in Claim 23.

In marked contrast to *Stinson*, the present invention discloses an optical method for comprising at least "***forming the laser device and performing the modulating step on one***

substrate." Specifically, on page 3, lines 14-16, the specification states that "the laser device, the plurality of modulators and the combining device can be economically fabricated on one substrate and comprise one module." Further, on page 9, lines 3-18, the specification states:

> FIG. 5 is a graphical illustration showing a light source 400 integrated in a single module. The module 400 includes a ceramic module 404 over which a silica waveguide combiner 406 is constructed. The silica waveguide combiner 406 may include the demultiplexer 218 and the multiplexer 252 of FIG. 3. The FP laser 210 receives an electrical input stimulus over connection 402 and can also be integrated onto the ceramic module 404 as shown so that the light output of the FP laser 210 is coupled to the silica waveguide combiner 406. The silica waveguide combiner 406, and more specifically, the demultiplexer 218 fabricated thereon, include the individual connections 222, 224, 226 and 228 that couple the output of the FP laser 210 to respective modulators 232, 234, 236 and 238. The output of each modulator is then supplied to a respective connection 242, 244, 246 and 248 over which the outputs are combined onto the optical fiber 104.
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> As shown in FIG. 5, the laser 210, the demultiplexer 218, the modulators 232, 234, 236 and 238, and the multiplexer 252 can all be integrated onto the ceramic module 404, thus creating a compact modular light source that is capable of providing multiple wavelength output modulated light signals from the single FP laser.

Thus, *Stinson* fails to disclose, teach, or suggest each element of Applicant's independent claim 23. Consequently, Applicant respectfully submits that claim 23 is allowable over *Stinson* and requests that the rejection of claim 23 be withdrawn.

Because independent claim 23 is allowable, dependent claims 24-26, which depend directly from allowable independent claim 23 are also allowable. *In re Fine, supra.* Accordingly, Applicant respectfully requests that the rejection of claims 23-26 be withdrawn.

III. Response to 35 U.S.C. §103 Rejections

A. Statement of the Rejection

Claims 5, 12 and 15-18 presently stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Stinson* in view of U.S. Patent No. 6,570,703 to Murakami *et al.* (hereafter *Murakami*).

B. Discussion of the Rejection

Applicant has canceled claim 15 without prejudice, waiver or disclaimer. Applicant respectfully traverses the rejection of claims 5, 12 and 16-18 under 35 U.S.C. §103(a) over *Stinson* in view of *Murakami* for at least the reason that they depend from allowable independent claims. *In re Fine, supra.*

CONCLUSION

In summary, Applicant respectfully requests that all outstanding claim rejections be withdrawn. Applicant respectfully submits that presently pending claims 1, 3-8, 10-14 and 16-26 are allowable over the cited art and the present application is in condition for allowance. Accordingly, a Notice of Allowance is respectfully solicited. Should the Examiner have any comment regarding the Applicant's response or believe that a teleconference would expedite prosecution of the pending claims, Applicant requests that the Examiner telephone Applicant's undersigned attorney.

Respectfully submitted,

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